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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,724	07/15/2004	Ludwig Bar	2001P22564WOUS	4377

7590 02/01/2007

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER	
AURORA, REENA	
ART UNIT	PAPER NUMBER
2862	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/501,724	BAR ET AL.	
	Examiner	Art Unit	
	Reena Aurora	2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13 - 19, 21, 23 and 26 - 29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13 - 19, 21, 23 and 26 - 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's arguments with respect to claims 13 – 19, 21, 23 and 26 - 29 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 13, 14, 16 – 19, 21 and 28 - 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker et al. (hereinafter Becker) (6,452,384) in view of Sutton Jr. et al. (hereinafter Sutton) (5,315,234).

As to claims 13, 16 – 19 and 21, Becker discloses a scanning head for eddy current testing comprising a flexible base (9); single signal coil (6); a single excitation coil (5); wherein the signal coil (6) and the excitation coil (5) are arranged in a planer form in a single layer on the flexible base (9); and a flexible rear layer (23) that at least partially covers the signal coil (6) and the excitation coil (5); wherein the flexible base (9), the signal coil, the excitation coil, and the flexible rear layer (23) are assembled in a

flexible stack of layers (Note fig. 1 and 8). Becker fails to disclose that the flexible rear layer comprises of a ferromagnetic material. Sutton discloses an eddy current device wherein flexible rear layer comprises of a ferromagnetic material (col. 5, lines 2 - 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Becker in view of the teachings of Sutton such that providing the flexible rear layer of ferromagnetic material would concentrate the magnetic flux from the excitation coil thereby increasing the efficiency of the device.

As to claim 14, Becker discloses that the flexible base is a flexible sheet (col. 4, lines 45 - 52).

As to claims 28 and 29, Becker discloses a scanning head for eddy current testing comprising a flexible base layer (9) comprising a front surface and a rear surface, the front surface exposed for contact with a test surface of a test body; a first electrical coil (6) mounted on the rear surface of the flexible base layer (9), a flexible rear layer (23); at least one electrical conductor (26A) connected to the first electrical coil (5) and passing through the flexible rear layer (23) and the flexible base layer (9), the first electrical coil (5), and the flexible rear layer (23) forming an assembled flexible stack of layers. Becker fails to disclose that the ferrite material at least partially covering the first electrical coil. Sutton discloses an eddy current device wherein flexible rear layer comprises of a ferromagnetic material (col. 5, lines 2 - 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Becker in view of the teachings of Sutton such that providing the

flexible rear layer of ferromagnetic material would concentrate the magnetic flux from the excitation coil thereby increasing the efficiency of the device.

Claims 15, 23, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker et al. (hereinafter Becker) (6,452,384) in view of Sutton Jr. et al. (hereinafter Sutton) (5,315,234) as applied to claim 13 above, and further in view of Fujino et al. (hereinafter Fujino) (6,067,002).

As to claim 15, Becker and Sutton fail to show that the sheet is formed from polyimide. Fujino discloses a circuit substrate wherein the flexible sheet (11) is formed of a material such as polyimide (col. 2, lines 57 - 60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Becker in view of the teachings of Sutton and further in view of the teachings of Fujino such that to form the sheet from polyimide which is a flexible material.

As to claims 23, 26 and 27, Becker discloses a scanning head for eddy current testing comprising a flexible base; a first electrical component (6) connected to the flexible base (9); a second electrical component (5) connected to the flexible base (9); and a rear layer (23), the rear layer attached to at least one of the electrical components (5, 6) on a curved surface of the rear layer to match a curved surface of a test body; wherein the flexible base (9), the first (5) and second (6) electrical components, and the rear layer (23) collectively form an assembled stack that is flexible after curing of the curable material to variably conform to a curved surface of a test body. Becker and

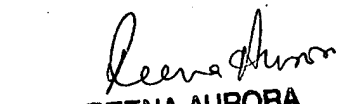
Sutton fail to show that the flexible base is formed as a flexible sheet of polyimide. Fujino discloses a circuit substrate wherein the flexible sheet (11) is formed of a material such as polyimide (col. 2, lines 57 - 60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Becker in view of the teachings of Sutton and further in view of the teachings of Fujino such that to form the sheet from polyimide which is a flexible material. Becker fails to disclose that the flexible curable material encapsulating ferrite particles. Sutton discloses an eddy current device wherein flexible rear layer comprises of a ferromagnetic material (col. 5, lines 2 - 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Becker in view of the teachings of Sutton such that providing the flexible rear layer of ferromagnetic material would concentrate the magnetic flux from the excitation coil thereby increasing the efficiency of the device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, E. Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Reena Aurora



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